

## REMARKS

### In the Claims:

Reconsideration and further examination of the subject patent application in light of the present Amendment and Remarks is respectfully requested. Claims 1-23 are currently pending in the application and stand rejected. No new matter has been added.

#### Rejection Under 35 U.S.C. §102

Claim 19 stands rejected under 35 U.S.C. §102 as being anticipated by Suh (2003/0219244). In view of claim 19 as amended, applicant respectfully traverses this rejection. Claim 19 has been amended to recite that the drive unit includes a lever, which is used for manually actuating the optical unit in an optical axis direction. This is supported in the specification at paragraph [0045] in conjunction with Fig. 13, which discloses lever 49. Further support is provided at paragraph [0050] in conjunction with Fig. 14, which discloses lever 57.

The zoom lens of Suh includes a drive unit having a motor 9, and gears 21, including power gear assembly 11, for actuating the optical unit 13. In contrast, Suh is electrically actuated, and is not adapted for manual operation. Suh does not teach or disclose a lever of any kind suitable for manual actuation, and manual operation is not disclosed. The element of a lever is completely missing in Suh. Accordingly, applicant respectfully submits that Suh cannot anticipate applicant's claimed invention.

#### Rejection Under 35 U.S.C. §103

Claims 1-3, 5-8, 10-12, 14-18, 22 and 23 stand rejected under 35 U.S.C. §103 as being unpatentable over Suh in view of Kanno (5,712,734). Claims 4 and 9 stand rejected under 35 U.S.C. §103 as being unpatentable over Suh in view of the IEEE article. Claim 13 stands rejected under 35 U.S.C. §103 as being unpatentable over Suh in view of Kanno (5,712,734) and Takachi

(2003/0137595). In view of the claims as amended and the below remarks, applicant respectfully traverses this rejection.

The Examiner cites Suh as the primary reference as disclosing all of the elements of claim 1 except for the detector for detecting a position of the optical unit with respect to the optical axis direction. The Examiner then combines Suh with the secondary reference to Kanno to supply the missing element. The Examiner suggests that Kanno teaches a zoom lens barrel for detecting a position of a zoom lens (Col. 10, lines 36-38). Thus, it is at least established that Suh does not provide the detecting element of applicant's claimed invention.

As a first matter, claim 1 has been amended to recite that both the drive unit and the detector are provided in a projected area of the imaging unit. The detector 6 is clearly on the projected area, as well as the drive unit, as shown in Fig. 10. Second, although Kanno may relate to a zoom lens assembly, Kanno is very different that applicant's claimed invention. In that regard, Kanno is a manually operated zoom lens, not an electronically actuated device. Kanno is adapted to be operated by the user's hand.

Further, the detector for detecting rotation in Kanno, which the Examiner argues provides the missing element, is very different than applicant's detector for detecting the position of the optical unit with respect to the optical axis. Because the Kanno lens is purely a manually actuated assembly, an encoder detects an amount of rotation of the cam barrel (Col. 10, lines 44-55). A detector or encoder configured to detect rotation, such as the Kanno detector, is a very different structure than a detector that detects the position of the optical unit with respect to the optical axis, even if they happen to be referred to by the same name, such as a "detector."

Accordingly, Kanno does not teach or suggest a detector for detecting the position of the optical unit with respect to the optical axis because the Kanno detector can only sense rotation,

which has nothing whatsoever to do with movement with respect to the optical axis. The Examiner appears to be using Kanno to supply a missing element merely because the Kanno specification happens to refer to a structure as a “detector.” It is not the same type of detector as in applicant’s claimed invention, and has virtually no connection to the detector in applicant’s claimed invention. At most, the Kanno detector may be tangentially related because it senses a physical movement. The Kanno detector would bear no closer relationship to applicant’s claimed detector had it been a vibration detector rather than a rotation detector.

Applicant submits that the secondary reference to Kanno does not provide the detector element admittedly missing from the primary reference to Suh. Accordingly, neither Suh nor Kanno alone, or the combination of the two cited references provides applicant’s claimed invention. In that regard, neither Suh nor Kanno teach or suggest the invention recited by dependent claims 2-3, 5-8, 10-12, 14-18, 22 and 23, because the cited references are still deficient with regard to the elements missing, as set forth above. Accordingly, applicant submits that the dependent claims are patentable over the combination of the cited references for the same reasons as set forth above with respect to independent claim 1, as amended.

Combining the two references would not arrive at applicant’s invention. What would such a combined lens assembly look like? It would contain the basic motorized zoom lens of Suh, but would further have some form of “detector” to detect rotation. However, the barrel of Suh does not rotate. Rather, the gears cause it to move along the axis. Accordingly, adding the rotation detector of Kanno does not provide a functional device.

Regarding dependent claims 4, 9, 13, 20, and 21, applicant submits that these dependent claims are patentable over the combination of Suh and Kanno in light of IEEE and Takachi for the same reasons as set forth above with respect to independent claim 1. The references to IEEE

and Takachi do not add any elements, nor disclose any details of significance to the already deficient disclosure provided by the primary and secondary references. Accordingly, applicant submits that the cited references, either individually or in combination, do not render applicant's claimed invention obvious.

Summary

Pending claims 1-23 are believed to be patentable. Applicant respectfully requests the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorneys for the applicant via telephone if such communication would expedite this application.

Respectfully submitted,



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Registration No. 38,110  
Eric D. Cohen  
Attorney for Applicant

BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, ILLINOIS 60610  
(312) 321-4200